

# **The Burden of Overweight and Obesity in Texas, 2000 - 2040**

## **Executive Summary**



# ProtectTexas™

Texas Department of Health

Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health

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June 23, 2004

Dear Partner in Health:

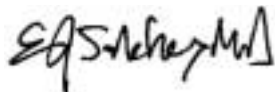
The Texas Department of Health (TDH) needs your help. The number of overweight and obese Texans is increasing at an alarming rate. During 2002, an estimated 10 million (63%) Texas adults were overweight or obese. If current trends continue, 20 million (75%) Texas adults might be overweight or obese by the year 2040. These numbers are worrisome because of the serious health risks associated with overweight and obesity, including but not limited to type 2 diabetes, heart disease, stroke, high blood pressure, asthma, and several types of cancer.

Currently, more than one-third of school-age children in Texas are overweight or obese. Throughout the United States, the prevalence of overweight and obesity among children more than doubled during the past 20 years. At least one-half of obese children and adolescents become obese adults. If we do not take note of this growing problem, our children might be the first generation with a life expectancy that is shorter than that of their parents.

This report describes the costs of health care, lost workdays, and premature death related to overweight and obesity among Texas adults. These costs could increase from an estimated \$10.5 billion during 2001 to as much as \$39 billion during 2040 if the overweight and obesity epidemic continues. The data presented in this report are a call to action. We must take steps to prevent the spread of overweight and obesity in Texas.

This report serves as a step toward raising awareness of the overweight and obesity epidemic in Texas, and first call to action by providing critical, decision-making information to policy makers and statewide partners. The alarm has been sounded. Please join with me now as we work together to develop partnerships that can provide solutions to this growing public health problem.

In Partnership,



Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health





SUSAN COMBS, COMMISSIONER

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June 23, 2004

Dear Concerned Texan:

Texas is facing a crisis of unprecedented proportions, and the time to act is now. The rates of overweight and obesity are skyrocketing – not only for adults, but for children as well. In Texas alone, about 35 percent of school-aged children are overweight or severely overweight, higher than the national average.

With increasing rates of overweight and obesity come sharply higher risks for serious and debilitating health problems, in turn leading to higher medical costs, lost productivity and, most tragic, lost lives.

We must face this problem head on and it is clear that our state cannot delay. Like all complex problems, this issue calls for more than one solution. But this is certain: **there is no time to waste.** Early intervention is critical, and every action makes a difference. That's why it's imperative to do more in the schools and classrooms across our state. Texas schools serve more than 400 million lunches and 200 million breakfasts a year. Together, these meals should provide 60 percent of a student's dietary needs. Schools must be given the tools they need to assume their role as community leaders in providing children a healthy environment to learn and grow. Families must be empowered with the information they need to make informed health choices for their children. We all have a part to play in reversing this crisis.

The cost in terms of dollars and lives is already staggering, but as this report from the Texas Department of Health shows, the future may be even more devastating if current trends continue. By 2040, our children and our children's children could be facing up to \$39 billion a year in direct and indirect costs in Texas related to overweight and obesity from health care, lost workdays and premature death.

Texans have never been known to stand down in a fight. That's why I believe we can win the battle against overweight and obesity. Our children's future is too high a price to pay.

Sincerely,

Susan Combs  
Commissioner



## Executive Summary

# The Burden of **Overweight and Obesity** in Texas, 2000-2040

## INTRODUCTION

Overweight and obesity are associated with increased risks for several chronic diseases, including but not limited to cardiovascular disease, ischemic stroke, type 2 diabetes mellitus, arthritis, and several types of cancer. In addition, life expectancy decreases with increasing degrees of overweight and obesity. Between 1991 and 2001, the prevalence of overweight and obesity among Texas adults rose from 46% to almost 62%<sup>1</sup>. During this same time period, the prevalence of obesity almost doubled, from 13% in 1991 to almost 25% in 2001. In order to understand the impact of this epidemic of overweight and obesity on the state of Texas, the Texas Department of Health conducted a study to

- 1** Estimate the direct and indirect costs of overweight and obesity among adults in Texas during 2001, based primarily on state-specific data
- 2** Project the number of normal weight, overweight, and obese adults in Texas through the year 2040
- 3** Project the annual costs of overweight and obesity among Texas adults through the year 2040

## METHODS

### Part One: Costs of Overweight and Obesity in Texas, 2001

Cost-of-illness study to estimate direct and indirect costs of overweight and obesity among Texas adults during 2001

**Direct costs:** Health care

**Indirect costs:** Value of lost productivity (e.g., wages and household work) due to illness and premature death

### Part Two: Projected Number of Normal Weight, Overweight and Obese Persons in Texas, 2000-2040

The number of normal weight, overweight and obese adults in Texas was estimated for the years 2000-2040 based on

Population projections provided by the Texas State Data Center (TSDC) in the Institute for Demographic and Socioeconomic Research at the University of Texas at San Antonio

Weight status prevalence data collected by the Texas Behavior Risk Factor Surveillance System during 1999-2002

### Part Three: Projected Costs of Overweight and Obesity in Texas, 2000-2040

The annual costs of overweight and obesity among Texas adults for the years 2000-2040 were estimated based on the 2001 cost estimates from part one of the study and the projected number of overweight and obese adults from part two of the study.

## KEY FINDINGS

### Part One: Costs of Overweight and Obesity in Texas, 2001

#### Prevalence of overweight and obesity

Of approximately 15.3 million adults aged 18 and older living in Texas during 2001

36.4% or 5.6 million were overweight  
(body mass index = 25-29.9 kg/m<sup>2</sup>)

24.1% or 3.7 million were obese  
(body mass index ≥ 30 kg/m<sup>2</sup>)

### Routine hospital discharges attributable to overweight and obesity

Of 1.5 million routine adult hospital discharges in Texas during 2001

2.8% or 42,678 were attributable to overweight-associated illnesses

3.4% or 51,729 were attributable to obesity-associated illnesses

The most common overweight- and obesity-attributable discharge diagnoses were

Coronary heart disease – 30,995 or 33% of discharges  
 Congestive heart failure – 13,850 or 15% of discharges  
 Type 2 diabetes mellitus – 11,340 or 12% of discharges  
 Ischemic stroke – 9,164 or 10% of discharges

### Direct healthcare costs attributable to overweight and obesity

Of \$67.1 billion spent for adult health care in Texas during 2001

\$4.21 billion or 6.3% of adult healthcare expenditures were for overweight- and obesity-associated illnesses

\$1.90 billion were spent for overweight-associated healthcare costs

\$2.31 billion were spent for obesity-associated healthcare costs

### Indirect costs attributable to overweight and obesity

#### Indirect costs of illness (morbidity)

Lost productivity (e.g., wages and household work) attributable to overweight and obesity-associated morbidity cost \$1.05 billion

\$0.18 billion in lost productivity costs were attributable to overweight

\$0.87 billion in lost productivity costs were attributable to obesity

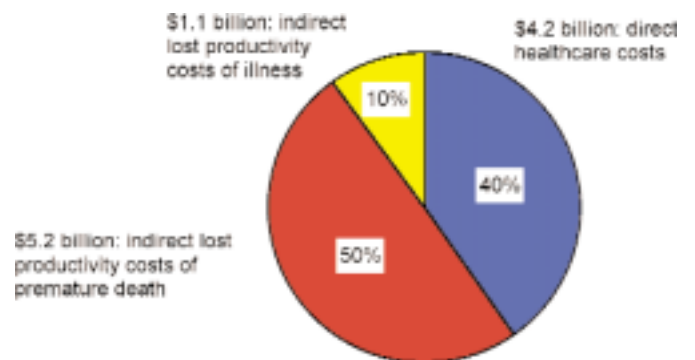
#### Indirect costs of premature death (mortality)

Lost productivity (e.g., wages and household work) attributable to overweight and obesity-associated pre-mature mortality cost \$5.2 billion

\$0.3 billion in lost productivity costs were attributable to 1,036 overweight-associated deaths

\$4.9 billion in lost productivity costs were attributable to 17,613 obesity-associated deaths

### Overweight- and obesity-associated costs for Texas adults totaled \$10.5 billion during 2001



## Part Two: Projected Number of Normal Weight, Overweight and Obese Adults in Texas, 2000-2040

### Prevalence of overweight and obese adults by sex and race/ethnicity in Texas, 1999-2002 (Texas Behavioral Risk Factor Surveillance System)

Race/Ethnicity	Overweight (%)	Obese (%)
<b>Anglo</b>		
Men	46.5	21.8
Women	27.9	18.9
<b>Total</b>	<b>35.7</b>	<b>20.1</b>
<b>Black</b>		
Men	41.9	32.3
Women	33.2	34.2
<b>Total</b>	<b>36.4</b>	<b>33.5</b>
<b>Hispanic</b>		
Men	45.4	28.3
Women	32.0	30.7
<b>Total</b>	<b>37.5</b>	<b>29.7</b>

### Projected annual number and prevalence of overweight and obese adults in Texas, 2000-2040 (Texas State Data Center population projections)

Year	Number (millions)	Prevalence (%)
<b>2000</b>		
Overweight	5.5	36.8
Obese	3.5	23.5
<b>Total</b>	<b>9.0</b>	<b>60.3</b>
<b>2010</b>		
Overweight	6.8	37.9
Obese	5.1	28.7
<b>Total</b>	<b>11.9</b>	<b>66.6</b>
<b>2020</b>		
Overweight	8.1	38.6
Obese	6.7	31.9
<b>Total</b>	<b>14.8</b>	<b>70.5</b>
<b>2030</b>		
Overweight	9.4	39.0
Obese	8.1	33.8
<b>Total</b>	<b>17.5</b>	<b>72.8</b>
<b>2040</b>		
Overweight	10.7	39.3
Obese	9.6	35.2
<b>Total</b>	<b>20.3</b>	<b>74.5</b>

## Projected prevalence of overweight and obese adults by sex and race/ethnicity for Texas in 2040

Race/Ethnicity	Overweight (%)	Obese (%)
<b>Anglo</b>		
Men	47.8	28.6
Women	29.4	24.7
<b>Total</b>	<b>38.4</b>	<b>26.6</b>
<b>Black</b>		
Men	41.5	43.6
Women	35.2	46.6
<b>Total</b>	<b>38.2</b>	<b>45.2</b>
<b>Hispanic</b>		
Men	47.7	39.1
Women	33.5	43.0
<b>Total</b>	<b>40.8</b>	<b>41.0</b>

### Projected changes in prevalence of overweight and obesity among Texas adults between 2000 and 2040

The prevalence of overweight is projected to increase from 36.8% in 2000 to 39.4% in 2040

The prevalence of obesity is projected to increase from 23.5% in 2000 to 35.2% in 2040

### Projected changes in the number of overweight and obese Texas adults between 2000 and 2040

The number of overweight adults is projected to almost double from 5.5 million in 2000 to 10.7 million in 2040

The number of obese adults is projected to almost triple from 3.5 million in 2000 to 9.6 million in 2040



### Part Three: Projected Costs of Overweight and Obesity in Texas, 2000-2040

#### Overweight and obesity are projected to cost **\$26.3 billion by 2040**

Costs of overweight could reach \$4.7 billion in 2001 dollars by 2040

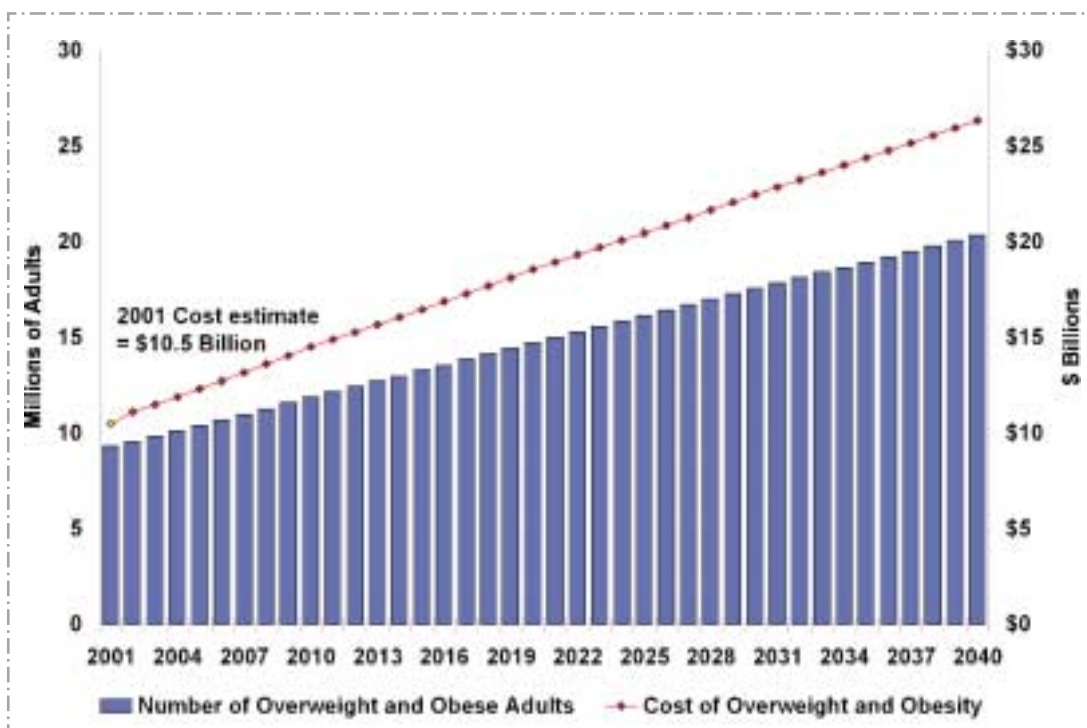
Costs of obesity could reach \$21.6 billion in 2001 dollars by 2040

Costs of overweight and obesity could be as high as **\$39 billion in 2040** if population growth continues at the rates observed during 1990-2000.

By 2040, it is projected that **20 million Texans** will be overweight or obese with associated costs estimated at **\$26.3 billion**. This cost figure could be significantly higher (as much as **\$39 billion**) if population growth continues at current rates.

### CONCLUSION

The economic burden of overweight and obesity in Texas is substantial, amounting to \$10.5 billion during 2001. The costs of overweight and obesity could increase dramatically if the prevalence of overweight and obesity continue to rise. Changes in population size and demographic composition in Texas during the next four decades will also contribute to increases in the number of overweight and obese persons in Texas. The findings in this report are based on conservative estimates and could underestimate the burden of overweight and obesity if the prevalence continues to increase at the rate observed during the 1990's. Decisive action and continued surveillance are needed to control this epidemic of overweight and obesity in Texas.



For more information about this study, contact the Office of Executive Support, Texas Department of Health at (512) 458-7111 ext 6517 or 6566 or by e-mail to [feedback.healthimprovement@tdh.state.tx.us](mailto:feedback.healthimprovement@tdh.state.tx.us).



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*“The alarm has been sounded. Please join with me now as we work together to develop partnerships that can provide solutions to this growing public health problem.”*

**Doctor Eduardo J. Sanchez**  
Commissioner,  
Texas Department of Health

*“Texans have never been known to stand down in a fight. That's why I believe we can win the battle against overweight and obesity. Our children's future is too high a price to pay.”*

**Susan Combs**  
Texas Agriculture Commissioner